

SANTA BARBARA NEIGHBORHOOD DITCH REHABILITATION

Living with unstable slopes and erosion is an all too common reality in the crowded neighborhoods of Santa Barbara, CA. Homes are built with minimal separation, and drainage systems often become disrupted with vegetation. When the challenge of repairing and maintaining a ditch between their homes arose, some residents turned to SmartDitch.

Between residential homes a 15" corrugated metal pipe (CMP) drained from the roadway into a vegetated ditch running along property lines. During heavy rain events the flow was disrupted by vegetation causing flooding in yards and erosion at the bottom of the slope. After giving consideration to extending the pipe down the slope or lining the ditch with concrete, a third option of using SmartDitch was chosen. SmartDitch is a corrugated HDPE liner that is designed to fit into an existing or new construction ditch.



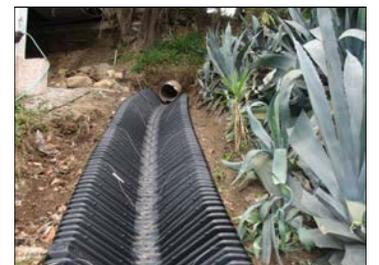
The reasons SmartDitch was chosen include:

- Stable channel design to prevent hillside erosion
- Superior flow characteristics to improve the flow of the water for drainage purposes
- Lower installation and maintenance costs



Approximately 135 lineal feet of the 12" Deep Trapezoidal SmartDitch product was to be laid on the slope. Vegetation and debris were cleared from the flow line of the ditch prior to installation. The liner sections were positioned at the opening of the 15" CMP allowing water to flow in. The course of the ditch followed the original drainage ditch requiring the liner to be installed with several small curves. Stone embedment material was brought in to fill the voids of the original ditch along the sides of the channel sections for slope stabilization. At the bottom of the slope the new lined ditch emptied into a natural drainage swale.

The installation of the ditch liner took approximately two days including the clearing of the vegetation and debris from the existing ditch. The installation crew consisted of local residents working with hand tools. The curves were installed by offsetting the flow line of the sections a small amount at each joint, creating a natural looking flow path. Because of SmartDitch's HDPE construction maintenance on this ditch will be minimal, ensuring years of trouble free operation.



WHERE CAN SMARTDITCH WORK FOR YOU?

- **SmartDitch** stops erosion before it starts.
- **SmartDitch** can be used as an alternative to rip-rap, vegetated swales, or concrete lined ditches.
 - Due to its flexible design, **SmartDitch** is easily installed on steep slopes or other areas that are difficult to access with heavy equipment.
- **SmartDitch** can be installed in highly erosive soils to provide a stable drainage channel where other methods have been unsuccessful.



For More Information
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